

REMARKS

Claims 1-3 and 5-25 are pending. Upon entry of the present amendment, claims 1-3, 5, 7-24, and 26-30 will be pending, claims 1, 9, 10, 12, 13, 15, 16, and 18 having been amended, claims 6 and 25 canceled, and claims 26-30 added by way of the present amendment.

Priority

The Examiner notified Applicants' representative via telephone on March 7, 2005 that certified copies of the priority documents had been properly forwarded to the Examiner from the International Bureau and Applicants need not provide copies. This issue is now moot.

Claim Objections

Claims 9, 10, 12, and 13 were objected to for having informalities requiring correction. Claims 9, 10, 12, and 13 have been amended to add the definitions of the objected-to terms "ALK1," "ALK3," and "XPR2" and to add the word "gene" after these terms. For the Examiner's reference, attached herewith is an article describing these definitions, Ohkuma, et. al., "Isozyme Function of *n*-Alkane-inducible Cytochromes P450 in *Candida maltosa* Revealed by Sequential Gene Disruption," J. Biol. Chem., 1998; 273(7):3948-3953.

Claims 24 and 25 were objected to as being an improper dependent form for failing to further limit the subject matter of independent claim 1. Applicants traverse the objection. Claim 1 states that that yeast may belong to any one of the listed genera. Whereas, claim 24 limits yeast to only one genus. Accordingly, claim 24 is a proper dependent claim under standard U.S. claim practice and procedure. Withdrawal of the objection is therefore requested. Claim 25 has been cancelled, rendering the objection moot.

Allowable Subject Matter

Claims 9, 12, and 13 have been amended to be in independent form. According, claims 9, 12, and 13 are believed to be allowable. Withdrawal of the objections is therefore requested.

112, 2nd Paragraph, Rejections

Claims 15, 16, and 18-23 were rejected under 35 U.S.C. 112, 2nd paragraph, as being indefinite.

Claim 15 has been amended to claim the gene comprising a polyhydroxyalkanoate synthase gene. Claim 16 has been amended to be consistent with the claim 15 amendments. New claim 29 has been added to claim two genes, where one gene comprises a polyhydroxyalkanoate synthase gene and the other gene comprises an (R)-specific enoyl-CoA hydratase gene. New claim 30 has been added to recite limitations similar to those in claim 16.

Claim 18 has been amended to replace “the codon CTG” with “codon CTG” and to replace “functions” with “expresses its function.” As described in the specification, page 8, last paragraph, codon CTG may generally be translated into leucine. However, some yeasts may translate codon CTG into serine. In such yeasts, exogenous genes that contain codon CTG would not express their functions. As in claim 18, codon CTG in exogenous genes may be replaced with codon TTA, TTG, CTT, CTC or CTA to allow the exogenous genes to express their functions in the yeasts.

Withdrawal of the rejections is therefore requested.

102(b) Rejections

Claims 1-3, 7, 14-17, and 25 were rejected under 35 U.S.C. 102(b) as being anticipated by Fukui (U.S. Patent No. 5,981,257). Applicants traverse the rejections.

Claim 1 as amended is directed to a transformant in which “at least one gene expression cassette...has been introduced into a yeast which belongs to any of the genera *Hansenula*, *Kluyveromyces*, *Phaffia*, *Pichia*, *Schizosaccharomyces*, *Schwanniomyces*, *Trichosporon*, and *Yarrowia*.”

In contrast, Fukui fails to teach or disclose the transformant of claim 1 derived from the genera of yeast recited in claim 1. Accordingly, claim 1 and its dependent claims are not anticipated by Fukui. Withdrawal of the rejections is therefore requested.

103(a) Rejections

Leaf in view of Fukui

Claims 1-3, 7, 14, 15, 17, and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Leaf (*Microbiology*, 1996; 142:1169-80) in view of Fukui. Applicants traverse the rejections.

Leaf does not teach or suggest the claimed transformant derived from the genera of yeast recited in claim 1. The deficiencies of Leaf are not corrected by Fukui because Fukui also fails to teach or suggest the claimed transformant.

Since the claimed transformant is absent from either reference, their combination would not provide the claimed transformant. Hence, claim 1 and its dependent claims are believed to be patentable over Leaf, Fukui, and the combination thereof. Withdrawal of the rejections is therefore requested.

Fukui in view of Park

Claims 1-3, 5, 7, 8, 10, 14, 15, 17, 24, and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable of Fukui in view of Park (*J. Biol. Chem.* 1997; 272(11): 6876-81). Applicants traverse the rejections.

As stated previously, Fukui fails to teach or suggest the claimed transformant of the present invention. The deficiencies of Fukui are not corrected by Park because Park also fails to teach or suggest the claimed transformant of the present invention derived from the genera of yeast recited in claim 1.

Since the combination of Fukui and Park would not produce the claimed transformant, claim 1 and its dependent claims are believed to be patentable over Fukui, Park, and the combination thereof. Withdrawal of the rejections is therefore requested.

Fukui in view of Masuda and Faber

Claims 1-3, 6, 7, 11, 14, 15, 17, and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fukui in view of Masuda (*Curr. Genet.* 1994; 25:412-417) and Faber (*Yeast*, 1995; 11:1331-1344). Applicants traverse the rejections.

As stated previously, Fukui fails to teach or suggest the claimed transformant of the present invention. The deficiencies of Fukui are not corrected by either Masuda or Faber

because neither teaches nor suggests the claimed transformant of the present invention derived from the genera of yeast recited in claim 1.

Since none of these cited references teach or suggest the claimed transformant, their combination also fails to do so. Hence, claim 1 and its dependent claims are believed to be patentable over the cited references, individually and in combination. Withdrawal of the rejections is therefore requested.

New Claims 26-30

New claims 26-30 are also believed to be patentable over the cited references for at least the following reasons.

Since claim 18 as amended is believed to be allowable, new claims 26 and 27, depending therefrom, are also believed to be allowable for at least the same reasons.

New claim 28 is directed to a transformant wherein at least one gene expression cassette has been introduced into a yeast belonging to the genus *Candida*, and said gene expression cassette comprises (i) a polyester synthesis-associated enzyme gene isolated from a bacterium, (ii) a promoter isolated from a yeast belonging to the genus *Candida*, and (iii) a terminator isolated from a yeast belonging to the genus *Candida*.

The Office Action asserts that "the limitation 'terminator' is interpreted as broadly as reasonably to also include situations where the terminator is comprised within the gene being expressed." See Office Action, page 5, item 2. This assertion does not apply here, where the gene is isolated from a bacterium and the terminator is isolated from a yeast belonging to the genus *Candida*.

None of the cited references teach or suggest the transformant of new claim 28 having a cassette comprising the claimed enzyme gene, promoter, and terminator. Therefore, new claim 28 is believed to be patentable over the cited references, individually and in combination.

New claims 29 and 30 are believed to be patentable for at least the same reasons as claims 15 and 16.

CONCLUSION

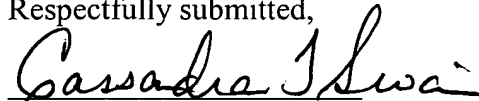
Claims 1-3, 5, 7-24, and 26-30 are believed to be allowable.

The Examiner is invited to call the undersigned at (202) 220-4200 to discuss any information concerning this application.

The Office is hereby authorized to charge any fees or credit any overpayment to Deposit Account No. 11-0600.

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Respectfully submitted,



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Attachment: Ohkuma reference